

PROCEEDINGS

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A NEW MOUSE OF THE *PEROMYSCUS BOYLII*
GROUP FROM UTAH

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In the course of preparing the accounts of the Utah mammals an hitherto undescribed race of *Peromyscus boylii* has been recognized. The description and name of the new form are as follows:

Peromyscus boylii utahensis, new subspecies

Type.—Female, adult, skin and skull, No. 4400, Museum of Zoology, University of Utah; 5 mi. above lower power station, Millcreek Canyon, 5,800 ft., Salt Lake County, Utah; November 15, 1941; collected by Henry W. Setzer, original number, 297.

Range.—In that part of the state bounded on the east by the Colorado and Green rivers and on the west by the area formerly occupied by Pleistocene Lake Bonneville; limits unknown outside of Utah.

Diagnosis.—Size large; tail long; ears and hind feet short (see measurements). Color: Upper parts a mixture of Fuscous, Light Ochraceous-Buff and gray giving a ground color of Hair Brown; ears dusky, faintly margined with white; nose and post orbital regions grayish; eye ring black; markings at base of vibrissae black; hind legs dusky to tarsal joints; dorsal surface of tail like mid-dorsal region; lower sides, flanks, cheeks and outer surface of front legs Light Ochraceous-Buff; front feet, hind feet, ventral surface of tail and entire underparts white (Capitalized color terms according to Ridgway, Color Standards and Color Nomenclature, Washington, D. C., 1912). Skull: Large; nasals long; depression at proximal end of nasals present; interparietal actually as well as relatively narrow; braincase wide and moderately inflated; diastema long; tympanic bullae well inflated ventrally.

Measurements.—The average and extreme measurements of five adult females from the type locality and near vicinity are as follows: Total length, 194 mm. (200-188); length of tail, 104 (109-95); ratio of length of tail to head and body length, 118 per cent (133-100); length of hind foot, 19.6 (22.0-17.0); length of ear, 18 (19-16); greatest length of skull, 27.9 (28.3-27.6); zygomatic breadth, 13.9 (14.0-13.7); greatest breadth of braincase, 13.3 (13.4-13.2); interorbital breadth, 4.5 (4.5-4.4); length of nasals, 11.1 (11.2-10.8); length of palate, 4.4 (4.5-4.2); length of incisive foramina, 5.2 (5.4-5.1); length of diastema, 7.0 (7.1-6.8); post palatal length, 9.5 (9.7-9.1); interparietal, 9.1×2.9 (9.4×3.0 - 8.8×2.6); depth of braincase, 8.25 (8.4-8.2); alveolar length of upper molar series, 4.05 (4.1-4.0). No topotypical males were available for measurements.

Comparisons.—Among named races of *Peromyscus boylii*, *utahensis* most closely resembles *Peromyscus boylii rowleyi* from southeastern

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Utah. Topotypical specimens of *utahensis* can be recognized from topotypes and near topotypes of *rowleyi* as follows: Size smaller; hind foot and ear shorter; tail relatively longer, averaging 118 per cent of the length of head and body as opposed to 106 per cent in *rowleyi*. Color: Markedly darker on upper parts (much more black and gray and less ochraceous); tail markedly darker. Skull: Larger in eleven of thirteen measurements; interorbital breadth narrower; alveolar length of upper molar series shorter; interparietal longer and narrower, extending nearly to the temporal suture in *rowleyi* (9.1×2.9 mm. as opposed to 9.6×2.8 in *rowleyi*); infraorbital foramina slightly narrower dorsally.

Remarks.—From the time of Osgood's revision of the genus *Peromyscus* (North American Fauna, No. 28, April 17, 1909) to the present, all Utah representatives of the species *Peromyscus boylii* have been referred to the subspecies *rowleyi*. At the time of his revision, Osgood (*op. cit.*: 147) only had specimens from extreme southeastern Utah, extreme southwestern Utah and from Ogden in northern Utah. He referred them all to *rowleyi*, the type locality of which is Noland's Ranch, N side San Juan River, $1\frac{1}{2}$ mi. above present "Four Corners" (Hall, Univ. California Publ. Zool., 37:2, April 10, 1931) in extreme southeastern Utah, east of the Colorado River. Thus there existed a peculiar discontinuity in the known distribution of this species within the state, as no specimens were known from the central part. Even though many more specimens are now available, they are all from the same general regions that Osgood reported and the large gap in the distribution still persists. Evidently these mice are not common, but further intensive collecting may yet bridge the gaps in this discontinuous distribution.

From the material available for this study it is apparent that the race *rowleyi* formerly considered to include all Utah animals of this species is limited to that part of the state east of the Colorado and Green rivers which appear to act as a barrier. All specimens studied from elsewhere in the state are referable to the subspecies *utahensis*.

Specimens from Zion National Park are intergrades between *utahensis* and *rowleyi*. They are intermediate in color but have the darker cast and the dark tail typical of *utahensis*. Moreover, they resemble *utahensis* in the proportion of tail length to head and body length. The majority of the cranial characters are like *utahensis* to which they are here referred. One specimen from 8 mi. N Escalante, Garfield County is also an intergrade, but referable to *utahensis*. Two specimens reported from the eastern end of the Uinta Mountains, west of Green River (Svihla, Journ. Mamm., 12:263, August 24, 1931) were unobtainable and have apparently been lost. They represented the most northern and eastern records of this species, and are provisionally placed under this new subspecies on distributional basis only. *Peromyscus boylii* is a southern species that in Utah reaches the northernmost limits of its range within the Great Basin. This new form here described is the northernmost one known from this region.

Specimens examined.—31, distributed as follows: *Salt Lake County*: 1 mi. above Forks, City Creek Canyon, 4,800 ft., 4; 2 mi. above mouth Millcreek Canyon, 4,800 ft., 2; 5 mi. above lower power station, Millcreek Canyon, 5,800 ft. (type locality), 3. *Garfield County*: 8 mi. N Escalante, 6,500 ft., 1. *Washington County*: Zion National Park, 21.

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